DOCUMENT RESUME

ED 218 848 EC 143 110

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TITLE Teachers' Use of Self Instructional Materials for Learning Procedures for Developing and Monitoring Progress on IEP Goals.
INSTITUTION Minnesota Univ., Minneapolis. Inst. for Research on Learning Disabilities.
SPONS AGENCY Office of Special Education and Rehabilitative Services (ED), Washington, DC.
REPORT NO IRLD-RR-63
PUB DATE Jan 82
CONTRACT 300-80-0622
NOTE 44p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Autoinstructional Aids; *Disabilities; Educational Objectives; Independent Study; Individualized Education Programs; Inservice Teacher Education; *Measurement Techniques; Teacher Attitudes; *Teacher Role

ABSTRACT

Six special education resource teachers pilot tested a manual designed to train teachers to use direct and frequent measurement techniques to monitor students' progress toward individualized goals and to evaluate the effectiveness of the students' instructional program. The accuracy of implementation of the procedures described in the manual and teachers' satisfaction with these procedures were evaluated, and the amount of time teachers spent in these measurement activities was documented. Results indicated that the manual was a satisfactory self instructional tool; the teachers were accurate in the implementation of the procedures and were highly satisfied with the manual. The primary problem with the training format was a decrease in teacher efficiency. In contrast to findings from more intensive training efforts, the teachers trained by the manual alone actually required more time for measurement at the end of the project than they had needed originally. (Author)

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ED218848

University of Minnesota

Research Report No. 63

TEACHERS' USE OF SELF INSTRUCTIONAL MATERIALS FOR LEARNING PROCEDURES FOR DEVELOPING AND MONITORING PROGRESS ON IEP GOALS

Caren Wesson, Phyllis Mirkin, and Stanley Deno

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Abstract

Eight special education resource teachers pilot tested a manual designed to train teachers to use direct and frequent measurement techniques to monitor students' progress toward individualized goals and to evaluate the effectiveness of the students' instructional program. The accuracy of implementation of the procedures described in the manual and teachers' satisfaction with these procedures were evaluated, and the amount of time teachers spent in these measurement activities was documented. Results indicated that the manual was a satisfactory self-instructional tool; the teachers were accurate in the implementation of the procedures and were highly satisfied with the manual. The primary problem with the training format was a decrease in teacher efficiency. In contrast to findings from more intensive training efforts, the teachers trained by the manual alone actually required more time for measurement at the end of the project than they had needed originally.

Teachers' Use of Self Instructional Materials for Learning Procedures for Developing and Monitoring Progress on IEP Goals

Standardized achievement tests have several characteristics that render them inadequate for monitoring student progress (cf. Fuchs & Deno, 1981). Within the typical classroom, the teacher requires simple and direct measures than can be used daily, if necessary, to monitor students. The need is especially great in special education classes, where teachers must develop appropriate goals for individual education programs (IEPs) and then must monitor students' progress on those goals.

Over a five-month period, researchers at the Institute for Research on Learning Disabilities (IRLD) pilot tested a manual designed to train special education resource teachers to (a) use direct and frequent measurement techniques in monitoring students' progress toward individualized goals, and (b) modify educational procedures based on the information obtained from measurement. The training manual was tested within a school-based setting in order to (a) determine whether teachers could accurately implement the procedures described in the training manual with minimal assistance from the manual developers, and (b) evaluate teacher satisfaction and attitude toward the training materials and the progress monitoring procedures detailed in the manual. In addition, the amount of time teachers spent in these measurement activities was documented (see Fuchs, Wesson, Tindal, Mirkin, & Deno, 1981, for details on the efficiency of the teachers who participated in this study).

Method

Subjects

The subjects in the pilot test of the manual were eight female special education resource room teachers from a suburban school district. Teaching experience ranged from 1 to 35 years, with 3.5 being the median number of years in regular education ($\bar{X}$ = 5.75) and 3.0 the median number of years in special education ($\bar{X}$ = 5.85). Two of the eight teachers held masters degrees; the remainder held a B.S. as the highest degree earned. All of the teachers were certified in special education; five of the eight had earned more than one teaching certificate. Of the 15 certificates held by these eight teachers, five were in learning disabilities, three in elementary education, two each in emotional disturbance, trainable mentally retarded, and educable mentally retarded, and one in general special education. Two of the subjects withdrew from the study after the first two weeks of data collection. Only the data from the six teachers who voluntarily continued through the remaining 13 weeks of the study are reported here.

Procedures

Training Manual. The training manual was a direct output of a year long research/training project in a rural special education cooperative that included six school districts. In that project, special education teachers were trained through workshop presentations to measure and graph student performance in reading, spelling, and written expression, to write long-term goals and short-term objectives that subsequently could be monitored through a measurement system based on the students' mainstream

curriculum, and to use the information obtained from measurement to determine when modifications in the student's instructional plans were necessary. Based on this workshop training, a manual was developed to present the same procedures with minimal supervision and few personal contacts between the teachers and the developers of the manual.

The manual was presented in three parts. The first part was designed to train teachers in the measurement techniques. It consisted of five units: reading, spelling, written expression, social adjustment, and graphing. Specific directions for administering the measurement tasks were included, along with practice measurement materials (word lists for reading and spelling, and sample story starters for written expression). The graphing unit instructed teachers in the procedures for labeling graphs and plotting scores.

Part 2 of the manual also consisted of five units. Unit 6, the first unit in Part 2, defined the distinction between progress and performance measurement. Units 7 and 8 described the procedures for writing long-range goals and short-term objectives, respectively. The steps for designing a measurement system based on the curriculum materials were outlined in Unit 9. Unit 10 provided instructions for implementation of the techniques detailed in Units 6 through 9.

Part 3 of the manual contained three units. These units instructed teachers in procedures for using the information obtained from measurement to monitor progress toward the long-range goals and short-term objectives and to modify instructional plans based on the students' performance. Unit 11 focused on specifying an instructional plan that included the instructional procedures, materials, time, setting, and motivational strate-

gies. Two options for using the student's performance data to monitor progress and to determine when changes in the instructional plans are necessary were specified in Unit 12. Unit 13 discussed the procedure for changing instructional plans.

Workshops. A series of three 45-minute workshops were held to introduce the teachers to each of the three parts of the training manual. The workshops were geared simply to describe the purpose of each part of the manual and to guide the teachers through the manual in order to familiarize them with its organization. No actual training in the implementation of the procedures was conducted, although teachers were free to ask questions for clarification. A fourth workshop provided the teachers with an opportunity for sharing their reactions to the manual itself and to the measurement and goal monitoring procedures.

Dependent Measures

Accuracy of Implementation. Data on the teachers' accuracy of implementing the procedures was derived from an implementation checklist. Observations of teacher measurement behavior were made twice during the weeks following introduction of Part 1 of the manual. During these observations, the following Accuracy of Implementation criteria were used to assess each teacher's performance in administering the measurement tasks and graphing data:

Behavior	Criteria
A. Measure and score the student's performance in each area using the materials in the manual and identify the appropriate level at which subsequent measurements will be conducted.	With 100% accuracy, where accurate measurement is defined as: 1. Bringing stopwatch, pencil to measurement area. 2. Selecting appropriate stimulus materials for both teacher and student.

	3. Giving correct directions for the task. 4. Administering the measurement procedure for the correct time period. 5. Correctly scoring the test protocol.
B. Record both correct and incorrect scores on a labeled graph.	With 100% accuracy, where a correctly labeled graph consists of: 1. The dates filled in on the abscissa. 2. The ordinate correctly labeled. 3. The units of measurement specified. 4. The student's name, teacher's name and subject area identified. 5. A key identifying the symbols for correct and incorrect scores. 6. Symbols placed at the correct intersection of date and score. 7. Consecutive data points connected with straight lines. 8. Absences recorded on the graph as (abs.) on the correct dates.

Two weeks following the introduction of Part 2 of the manual, the graphs, long-range goals, and short-term objectives that teachers had developed for target students were inspected to determine whether the following criteria were met:

Behavior	Criteria
C. Write a long-term goal in each area.	With 100% accuracy with the procedures described in Unit 6 as follows: 1. Goal specifies the number of weeks until next review. 2. Goal specifies student behavior.

3. Goal specifies mastery criterion, which is:

   a. for reading: grade 1-2, 50 wpm with 5 or fewer errors; grade 3-6, 70 wpm with 7 or fewer errors.

   b. for spelling: grades 1-2, 40 letter sequences or 5 words correct per 2 minutes, grades 3-6, 60 letter sequences correct or 8 words correct per 2 minutes.

   c. for written expression: a rate based on the formula, (baseline median x appropriate multiplier + total words actual mean score) /2

   d. for social behavior: a level 3-5x less or 3-5x more than current level.

D. Record and graph the student's correct and incorrect scores on a labeled performance graph.

Such that the graph is correctly labeled and data are recorded accurately, with:

1. The dates filled in on the abscissa.

2. The ordinate correctly labeled.

3. The units of measurement specified.

4. The student's name, teacher's name and subject area identified.

5. A key identifying the symbols for correct and incorrect scores.

6. Symbols placed at the correct intersection of date and score.

7. Consecutive data points connected with straight lines.

8. Absences recorded on the graph as (abs.) on the correct dates.

E. Write a short term objective in each area.

Such that the short-term objective is 100% accurate, with the procedures described in Unit 8 (for performance charting):

1. Objective specifies the stimulus material (see LRG).

2. Objective specifies the student behavior.

3. Objective specifies the average increase in performance per week; that is, [(desired performance-actual performance)/number of weeks until annual review].

To assess the accuracy of implementation following the teacher's introduction to Part 3 of the manual, teacher's graphs were examined. The following was monitored:

Behavior	Criteria
F. Design a measurement system.	Such that the measurement system is complete, is consistent with the teacher's selection of progress or performance charting, and accurate with respect to procedures identified in Unit 12. Completeness for performance measurement includes statements of the frequency of measurement (at least twice weekly), the stimulus format (dependent on domain) the stimulus material selection procedure (random selection from the annual goal material for reading and spelling, story starter for written expression), the test administration procedure, the scoring procedure, and the graphing conventions.

Teacher Satisfaction. Teacher satisfaction with the continuous evaluation system and with the training manual was assessed through responses to three questionnaires that were administered following implementation of Parts 2 and 3 of the training manual and at the completion of the project. These questionnaires addressed issues of the usefulness of the measurement procedures outlined in the manual, the clarity and usefulness of each unit of instruction, and the degree of difficulty in reviewing and using the materials. Responses to questionnaire items were tallied and medians computed.

Teacher Efficiency. Teacher efficiency was assessed as the amount of time engaged in preparing for, administering, and scoring and graphing the measures in reading, spelling, or written expression. The dependent data for teacher efficiency were operationalized as follows:

Operation #1. Measurement preparation while student was not present:

While student was not present, the teacher found and selected student sheet(s), teacher sheet(s), graph, and necessary equipment (stopwatch, pencils, acetate sheet, grease pencil, etc.). The teacher also put away materials while student was not present.

To measure this teacher behavior, the observer began the stopwatch as the teacher first touched materials in preparation for measurement. The observer continued to time through minor interruptions such as phone calls and teacher/principal interruptions in preparation time. The observer stopped the timer as the teacher finished preparation. The observer also timed the teacher as he/she put away student materials. The teacher indicated the number of students for whom materials had been prepared and put away.

Operation #2. Measurement preparation while student was present:

While student was present, the teacher found and selected stimulus material, response sheet, graphs, and necessary equipment (stopwatch, pencils, acetate sheet, grease pencil, etc.). The teacher also put away materials while the student was present.

To measure this teacher behavior, the observer began the stopwatch as the teacher first touched materials in preparation for measurement. The observer continued to time through minor interruptions, but stopped timing for major interruptions such as student fights, student temper tantrums, principal visits,

etc. The observer stopped the timer as the teacher finished preparation. The observer also timed as teacher put away materials. The observer indicated the number of students for whom materials had been prepared.

Operation #3. Directions: The teacher provided instructions to the students.

To measure this teacher behavior, the observer began the stopwatch as the teacher initiated instructions. Timing was terminated when the teacher finished giving instructions.

Operation #4. Scoring and Graphing: Having administered the test, the teacher scored and graphed student performance.

To measure this teacher behavior, the observer began the stopwatch as the teacher began scoring and stopped immediately after performance was graphed. This was done for each area the teacher scored and graphed.

Following implementation of Part 1 of the manual, teachers were observed as they were engaged in the standard measurement tasks devised by the IRLD staff. During the final weeks of the project, teachers observed their own efficiency while they measured one student's behavior in a measurement task that the teacher had developed. An Observation Recording Sheet (see Appendix A) was used to assist in the monitoring of teacher efficiency.

Results

Accuracy of Implementation

Results of two observations following implementation of Part 1 of

the manual revealed that most teachers accurately measured and scored the student's performance in reading (isolated words and reading in context), spelling, and written expression. An average of 85% of the teachers met the five criteria pertinent to measuring and scoring (see Table 1). During the first observation, the criterion which was met least often (80% of the time) was that of administering the measurement task for the correct time period. The results of the second observation, conducted one week later, revealed that 88% of the teachers met this criterion. During the second observation, the criterion met least often (60% of the time) was that of giving correct directions for the task.

Insert Table 1 about here

The accuracy with which teachers graphed data also was assessed at this time. On the average, the eight criteria specified here (see Behavior B) were met 76% of the time. Of the eight criteria, the three met least frequently were: (a) absences recorded on the graph (26% of the time), (b) the ordinate correctly labeled (51% of the time), and (c) a key identifying the symbols (62% of the time). On the average, 18 Part 1 accuracy of implementation criteria were met 81% of the time.

Following implementation of Part 2 of the manual, teachers' accuracy in writing long-term goals was assessed. All teachers who wrote goals in reading (N=3) met the specified criteria (see Behavior C). The two teachers who wrote goals in spelling used the correct form in writing the goals but did not use the correct mastery criterion (see Behavior C). None of the teachers had written goals in written expression or

social behavior. An average of 75% of the teachers met the eight criteria included in accuracy of recording and graphing student performance (Behavior D). All teachers labeled the graph, the units, and connected the data points with straight lines. Only 60% of the teachers correctly labeled the ordinate. All other criteria were met by 80% of the teachers. All teachers correctly wrote performance short-term objectives (see Behavior E).

Following implementation of Part 3 of the manual, teacher accuracy in designing a measurement system (Behavior F) was assessed. All but one teacher (80%) met the required criteria.

Teacher Satisfaction

Teachers' responses to the three questionnaires were calculated on a four-point scale, with 4 being the high rating and 1 being low. Responses from the first questionnaire indicated that teachers rated measurement results as moderately useful ($\bar{X}$ = 2.7), but only one of the six teachers had used the information obtained from measurement. Teachers judged the instructional programs devised for their target students as moderately effective to very effective ($\bar{X}$ = 3.3). The mean difficulty rating for using the procedures described in the manual was 1.2 (1 = not difficult and 2 = somewhat difficult) for Unit 11 (Specifying an Instructional Plan), and 1.3 for Unit 12 (Using the Student's Performance Data). The clarity of Units 6 (Progress Charting versus Performance Charting), 7 (Writing Long-Range Goals), 8 (Writing Short-Term Objectives), and 9 (Designing a Curriculum-Based Measurement System) was rated as 3.3, 3.5, 3.8, and 3.6, respectively. Mean ratings for

usefulness of these same four units was 3.0, 3.5, 3.3, and 4.0. (See Appendix B.)

The questionnaire administered following Part 3 of the manual yielded similar results. The usefulness of measurement results was rated as 3.2 on the average, with five of the six teachers stating that they had used the measurement information. The effectiveness of the instructional program received a mean rating of 3.2. Unit 10 (Implementing the Evaluation System) and Unit 12 (Data Utilization) were rated as somewhat difficult. The clarity of Unit 11 (Specifying an Instructional Plan), Unit 12 (Data Utilization), and Unit 13 (Changing the Instructional Plan), was rated as 3.5, 3.2, and 3.3, respectively, with a rating of 4 being very clear. The usefulness of these units was judged to be 3.4, 3.0, and 3.0 on the four-point scale. One teacher commented, "Excellent material on aimline and therapeutic technique. This is new to me and very useful." (See Appendix C.)

The questionnaire administered at the conclusion of the research project also was based on a four-point scale, with four being the high rating. Teachers were moderately interested in having their school district adopt the manual's procedures for writing IEPs ($\bar{X}$ = 2.8) and for monitoring and evaluating progress on IEP goals ($\bar{X}$ = 3.0). With respect to applying these procedures to the entire caseload, teachers judged that this endeavor would be somewhat difficult to accomplish ($\bar{X}$ = 2.0) and would be moderately useful ($\bar{X}$ = 2.6). Teachers' responses to the open-ended question, "What is your opinion of this approach to writing IEPs and evaluating student progress?" were:

(1) Very clear, meaningful and visual for reporting progress.

(2) Somewhat helpful, very time consuming.

(3) It is a good approach that is specific.

(4) I really like it and could find it effective.

(5) An excellent way to visualize progress and be more specific as to mastery of each goal.

(6) With supporting research data [this approach] can be a boon to special education.

Teachers also listed a number of advantages and disadvantages to this system of writing and evaluating IEPs; these are included in Table 2. The final question asked for teacher estimates of the percent of time spent with the student collecting data. Half the teachers estimated 10% and the rest estimated 25% to 30%. (See Appendix D.)

Insert Table 2 about here

Teacher Efficiency

The median time spent by teachers to prepare, give directions, and score and graph measurement results for one academic behavior using the IRLD measurement tasks was 2 minutes and 2 seconds per task following training on Part 1 of the manual (see Table 3). At the conclusion of the project, teachers collected data on their own behavior to determine time spent in measurement when they used their own measurement system. The results revealed a median time of 15 minutes per task.

Insert Table 3 about here

Discussion

The teachers in this study were trained in frequent and direct measurement primarily through the use of a training manual. Several brief workshops provided an overview of the framework for the manual and clarification of the directions in the manual. The results indicated that this training format was successful. The majority of teachers were able to accurately implement the procedures and were highly satisfied with the manual as a training tool. However, the main drawback of this minimal training effort, which was much less than the intensive training usually conducted, was a decrease in teacher efficiency. As reported by Fuchs et al. (1981), teachers who participated in more intensive training over a longer time period increased their efficiency significantly. In contrast, the teachers in this study actually required more time for measurement at the end of the project than they originally had needed. This reduction in efficiency may have been due to the lack of focus on efficiency as an important goal and also to the fact that these teachers measured the behavior of only one student. If teachers had applied this approach to a greater portion of students on their caseload, the importance of efficiency might have been self evident. A second possible explanation for the observed decrease in efficiency might be related to the measurement task itself. The tasks initially required of teachers were developed by IRLD staff and were designed to promote efficiency. When teachers were required to develop their own measurement materials, the time required in preparing, administering, scoring, and graphing was increased. The manual did not address the issue of how to increase efficiency of measurement under these conditions and

most of the teachers in the study apparently did not investigate alternatives that would promote greater efficiency. Since the major criticism of continuous evaluation procedures is their time-consuming nature, future training materials should included procedures that train teachers in measurement efficiency.

References

Fuchs, L., & Deno, S. The relationship between curriculum-based mastery measures and standardized achievement tests in reading (Research Report No. 57). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1981.

Fuchs, L., Wesson, C., Tindal, G., Mirkin, P., & Deno, S. Teacher efficiency in continuous evaluation of IEP goals (Research Report No. 53). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1981.

Table 1

Percentages of Teachers Accurately Implementing Six Behaviors

Behavior	Criterion	Reading in Context	Reading in Isolation	Spelling	Written Expression	Social Behavior	Average
A (First Observation)	1	.83	.88	1.00	.86		.89
	2	1.00	.88	1.00	.71		.90
	3	.83	.88	.88	.86		.84
	4	.83	.75	.75	.86		.80
	5	1.00	.86	.83	1.00		.92
	Average	.90	.85	.89	.86		.87
A (Second Observation)	1	1.00	1.00	.83	1.00		.96
	2	1.00	1.00	1.00	.83		.96
	3	.38	.50	.33	.83		.60
	4	.88	1.00	.83	.83		.88
	5	.86	1.00	.57	.83		.82
	Average	.82	.90	.71	.86		.82
A (Both Observations)	Average	.86	.88	.80	.86		.84
B	1	.71	.86	1.00	1.00	1.00	.91
	2	.43	.71	.43	.66	.33	.51
	3	1.00	1.00	1.00	1.00	1.00	1.00
	4	.86	1.00	.86	1.00	.83	.91
	5	.86	.86	.71	.33	.33	.62
	6	.86	1.00	1.00	1.00	1.00	.97

Table 1 (continued)

Behavior	Criterion	Reading in Context	Reading in Isolation	Spelling	Written Expression	Social Behavior	Average
	7	.86	.86	.86	1.00	1.00	.86
	8	.29	.00	.00	1.00	.00	.26
	Average	.73	.79	.73	.87	.69	.76
C	1	1.00		1.00			
	2	1.00		1.00			
	3	1.00		.00			
	Average	1.00		.67			
D	1	.80					
	2	.60					
	3	1.00					
	4	1.00					
	5	.80					
	6	.80					
	7	1.00					
	8	.00					
	Average	.75					
E	1	1.00					
	2	1.00					
	3	1.00					
	Average	1.00					
F	--	.80					

Table 2

Advantages and Disadvantages of Continous Evaluation Reported by Teachers

Advantages	Disadvantages
good for children	very time consuming
freedom to use appropriate approach	% of time with student in testing
very individualized for each student	the paperwork (testing, charting, word lists, adaptation of present curriculum, etc.)
can be measured easily once system is established (and not in addition to another system)	don't have ready-made charts; paperwork; storage needs
clear and concise	time and number of workshops and training sessions both Special Ed. and mainstreaming teachers' time
very structured, organized	that the research data behind the reliability and validity of the measurements do show growth in the student (both so the parent understands and the mainstream staff understands)
clear for parents as well	it would be difficult to change; all teachers should be in agreement of this system
easily reviewed at parent conferences	need for in-service
less time consuming	
less repetition	
proof of progress	
progress is visible to student	
the STOs "spell out" well and become realistic "enablers" in accomplishing LRGs	
consistent throughout the district; if a student should change schools	

Table 3

Median Times Spent by Teachers in Measurement Tasks

	Subject	Seconds	No. of Areas	Seconds per Task
First Observation				
	1	521	4	130.25
	2	533	4	133.25
	3	1125	4	281.25
	4	819	2	409.5
Second Observation				
	1	565	4	141.25*
	2	577	4	144.25
	3	373	4	93.25
	4	459	4	114.75
	5	796	4	199

*Median score 141.25 = 2 minutes and 21 seconds

APPENDICES

APPENDIX A

Observation Recording Sheet **Name** _____ **Date** _____

PREPARATION WHILE STUDENT IS NOT PRESENT	TIME: _____ [#STUS*:]	TIME: _____ [#STUS:]	TIME: _____ [#STUS:]
	TIME: _____ [#STUS:]	TIME: _____ [#STUS:]	TIME: _____ [#STUS:]
PREPARATION WHILE STUDENT IS PRESENT	TIME: _____ [#STUS:]	TIME: _____ [#STUS:]	TIME: _____ [#STUS:]
	TIME: _____ [#STUS:]	TIME: _____ [#STUS:]	TIME: _____ [#STUS:]

DIRECTIONS FOR TASK	READING IN ISOLATION	READING IN CONTEXT	SPELLING	WRITTEN EXPRESSION
	TIME: _____ [#STUS:]	TIME: _____ [#STUS:]	TIME: _____ [#STUS:]	TIME: _____ [#STUS:]
SCORING & GRAPHING	TIME: _____	TIME: _____	TIME: _____	TIME: _____

* #STUS = # STUDENTS
INDICATE ONLY IF GREATER THAN 1

APPENDIX B

Results From Questionnaire Following Implementation of Part 2 of the Manual

N=6

1) IEP Area

Spelling - 2
Reading - 3
Written Language - 1

How often?

2x/wk - 2
3x/wk - 4
4x/wk - 1

2) Rate the usefulness of the measurement results that you have collected from the students.

4 Very Useful	3 Moderately Useful	2 Somewhat Useful	1 Not at all Useful
1	3	1	1*

*"But the material I develop for my student will be very useful. I appreciate this input to measure progress, even though the first stage wasn't useful in direct application."

3) Have you used the information that you collected through measurement?

YES	NO
1	5

(no) - however, I shall implement a change in my performance technique in the 81-82 school year.

(yes) - to help design comprehensive goals for this student and modify present reading and spelling and written language goals and objectives.

4) Given the student with whom you are currently practicing DPBM, rate how effective your instructional program has been up to now.

4 Very effective	3 Moderately Effective	2 Somewhat Effective	1 Not Effective
2	4*	0	0

* new student from another district, so hard to measure.

5) How difficult was it for you to develop an unstructured plan for your target student using the procedures specified in Unit XI?

4 Very Difficult	3 Moderately Difficult	2 Somewhat Difficult	1 Not Difficult
0	0	1	5

6) How difficult was it for you to review the materials and use the procedures specified in Unit XII?

4 Very Difficult	3 Moderately Difficult	2 Somewhat Difficult	1 Not Difficult
0	1	0	5

Clear

Unit	4 Very	3 Mod.	2 Some	1 Not	No Answ
VI	4	0	2	0	0
VII	5	1	0	0	0
VIII	4	1	0	0	1
IX	3	2	0	0	1

Useful

Unit	4 Very	3 Mod.	2 Some	1 Not	No Answ
VI	2	0	2	0	2
VII	2	2	0	0	2
VIII	1	2	0	0	3
XI	3	0	0	0	3

8) Suggestions and comments.

Unit VI - The difference between progress and performance is not clear.

The difference between the two measures is difficult to see at first.

Unit VII - Very clear; good examples.

I don't understand why on pg. 9 the second goal is incomplete.

Unit VIII - Very clear; good examples.

Would be quicker if you provided answers for math problems to make sure one is doing the problems correctly.

Difficult to develop the STO for performance measure strategy using "isolated words" as a measurement - there seem only to be "reading in context" examples to follow.

Unit IX - Very well written, easily understood and easy to follow.

Clear.

I need a bit more time to design my measurement system since I have selected a different student to do the measurement.

General comment:

They are all useful, yet they all become part of a total IEP which encompasses many areas....A total overhaul of District #16's IEP, LRG and STO forms would be beneficial to realize the use of this process and procedure which involves a whole lot of time and energy.

APPENDIX C

Results from Questionnaire Following Implementation of Part 3 of the Manual

N=6

1) IEP Area

Spelling - 2
Reading - 1
Reading Isolated Words - 2
Written Language - 1

How often?

1x/wk - 1
2x/wk - 3
3x/wk - 1
4x/wk - 1

2) Rate the usefulness of the measurement results that you have collected from the students.

4	3	2	1
Very Useful	Moderately Useful	Somewhat Useful	Not at all useful
2	3	1	0

3) Have you used the information that you collected through measurement?

YES	NO
5	1

(no) - The timing of this program was inappropriate. We had already established our plan for the year....(didn't understand) just what I was to do.

(yes) - for program planning assessment.
- incorporate techniques into our Woodcrest spelling series.
- to modify and enhance student's total program with respect to language.
- to help kids recognize what they are doing wrong. Makes the discrepancy plain and explainable.
- developing goals and short term objectives.

4) Given the student with whom you are currently practicing DBPM, rate how effective your instructional program has been up to now.

4 Very Effective	3 Moderately Effective	2 Somewhat Effective	1 Not Effective
2	3	1	0

5) How difficult was it for you to develop an unstructured plan for your target student using the procedures specified in Unit XI?

4 Very Difficult	3 Moderately Difficult	2 Somewhat Difficult	1 Not Difficult
0	2*	2**	2***

* lots of reading and time involved
** no time to make changes at this time
*** however, a #4 in the demands on our time

6) How difficult was it for you to review the materials and use the procedures specified in Unit XII?

4 Very Difficult	3 Moderately Difficult	2 Somewhat Difficult	1 Not Difficult
1*	1	2	2

* no time; not the materials

7) Rate the clarity and usefulness of each of the units.

CLEAR

Unit	4 Very	3 Mod.	2 Some	1 Not
XI	4	1	1	0
XII	3	2	0	1
XIII	3	2	1	0

USEFUL

Unit	4 Very	3 Mod.	2 Some	1 Not	N/A
XI	2	1	2	0	1
XII	2	1	2	0	1
XIII	2	1	2	0	1

8) Suggestions and comments.

Unit XII - Excellent materials on aimline and theraputic technique. This is new to me and very useful.

I wasn't able to compute the median and come up with the same score as you on pg. 8, Fig. D or pg. 10, Fg. 6.

General Comments

It is all useful information, but tedious to go through given our time frame and commitment at school and our students.

Units fell out and were out of order. Number the pages.

APPENDIX D

Results from Questionnaire at the Completion of the Project

N=6

1) How interested would you be in having your school district adopt these procedures for writing IEP's?

1 Not Interested	2 Somewhat Interested	3 Moderately Interested	4 Very Interested
0	2	3	1

2) How interested would you be in having your school district adopt these procedures for monitoring and evaluating progress on IEP goals?

1 Not Interested	2 Somewhat Interested	3 Moderately Interested	4 Very Interested
0	1	4	1

3) How easy would it be to implement these procedures with all the students in your case load?

1 Not Interested	2 Somewhat Interested	3 Moderately Interested	4 Very Interested
2	1	3	0

4) How useful would it be to implement these procedures with all the students on your caseload?

1 Not Interested	2 Somewhat Interested	3 Moderately Interested	4 Very Interested
0	3	2	1

5) What is your opinion of this approach to writing IEP's and evaluating student progress?

- Very clear, meaningful and visual for reporting progress.
- Somewhat help; very time consuming.
- It is a good approach that is specific.
- I really like - could find it effective, if all other things being equal.
- An excellent way to visualize progress and be more specific as to mastery of each goal.
- With supporting research data can be a boon to Special Ed. and LD if District #16 releases us from their finding rules of IEP writing and evaluating procedures.

6) What are the advantages of this system of writing and evaluating IEP's

- good for children
- freedom to use appropriate approach
- very individualized for each student
- can be measured easily once system is established (and not in addition to another system)
- clear and concise
- very structured, organized
- clear for parents as well
- easily reviewed at parent conferences
- less time consuming
- less repetition
- proof of progress
- the STOs "spell out" well and become realistic "enablers" in accomplishing LRGs.
- consistent throughout the district; if a student should change schools.

7) What are the disadvantages of this system of writing and evaluating IEPs?

- very time consuming.
- % of time with student in testing
- the paperwork (testing, charting, word lists, adaptation of present curric, etc.)
- don't have ready-made charts; paperwork; storage needs
- time and number of workshops and training sessions both Special Ed. and mainstreaming teachers' time.
- that the research data behind the reliability and validity of measurements do show growth in the student (both so the parent understands and the mainstream staff understands).
- It would be difficult to change. All teachers should be in agreement of this system.
- need more in-service.

8) Additional comments or recommendations.

- I hope this is adopted by District #16...beter way to document growth because can standardize testing district-wide. Children's needs should come before teachers and administrators. We desperately need change - maybe this will start it.
- wish we could have spent more time understanding and discussing the system. Spent too much time arguing and defending it. need more explanation time - your expertise seemed to be wasted too often when you visited.
- need this form of evaluation, but with full load of teaching, organization and assistance is a problem.

9) What percentage of time is spent with student on collecting data?

10% - 2
25% (or more) - 1
30% - 1
N/A - 2

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